CLAIMS

1. A method for imparting anti-static characteristics to fuel, the method comprising supplying a hydrocarbon fuel; and mixing the fuel with metal ion to reduce the electrical resistance of the fuel.

2. The method as recited in claim 1 wherein the metal ion is contained in a salt selected from the group consisting of LiBr, KBr, MgBr, and combinations thereof.

3. The method as recited in claim 1 wherein the ion is contained in a coordination complex containing a metal selected from the group consisting of Li, K, Mg, Ca, Na, Cs, Be, Sr, Ba, and combinations thereof.

4. The method as recited in claim 1 wherein the metal comprises an alkaline metal.

5. The method as recited in claim 1 wherein the step of mixing fuel with a metal ion is preceded by solubilizing a salt containing the metal ion with a solvent.

6. The method as recited in claim 5 wherein the solvent is an organic compound selected from the group consisting of a ketone, an alcohol, an aldehyde, and combinations thereof.

7. A method for reducing the electrical charge in fuel, the method comprising; supplying a hydrocarbon fuel, and adding a metal salt solution to said hydrocarbon fuel.

8. The method as recited in claim 7 wherein the solution comprises a salt present in a solvent in a weight ratio of between 0.0001:1.0 to 0.01:1.0 salt:solvent.

9. The method as recited in claim 7 wherein the salt solution is present in the fuel in a volume percent of between 0.0001 to 0.01.

10. The method as recited in claim 9 wherein the solvent is a liquid selected from the group consisting of an alcohol, a ketone, an aldehyde, and combinations thereof.

11. The method as recited in claim 10 wherein the alcohol is present with water in a volume ratio of between 0.1% to 99.5%.

12. The method as recited in claim 11 wherein the ketone is present with water in a volume ratio of between 0.1% to 99.5%.

13. A method for increasing combustion characteristics of a fuel, the method comprising supplying a hydrocarbon fuel; and minimizing static electricity accumulations in the fuel prior to combustion.

14. The method recited in claim 13 wherein the step of minimizing static electricity includes the step of adding a metal salt solution to said hydrocarbon fuel.

15. The method as recited in claim 14 wherein the metal salt solution comprises a salt present in a solvent.

16. The method as recited in claim 15 wherein the solvent is a liquid selected from the group consisting of an alcohol, a ketone, an aldehyde, and combinations thereof.

17. The method as recited in claim 13 wherein the step of minimizing static electricity charge includes the step of mixing said hydrocarbon fuel with a salt selected from the group consisting of LiBr, KBr, MgBr, and combinations thereof.

18. The method as recited in claim 13 wherein the step of minimizing static electricity charge includes the step of adding a coordination complex containing a metal selected from the group consisting of Li, K, Mg, Ca, Na, Be, Cs, Sr, Ba, and combinations thereof.

19. The method as recited in claim 18 wherein the coordination complex is present in the fuel in a volume percent of between 0.0001 to 0.01.

20. The method as recited in claim 13 wherein the step of minimizing static electricity accumulations comprises electrically connecting the accumulations to each other via a solubilized metal.

21. A substance to decrease static charge in ligand fuels, the substance comprising an alkaline metal homogeneously disbursed throughout electrically non-conductive fuel.

22. The substance as recited in claim 21 wherein the alkaline metal is present in the fuel in weight ratio of between 0.0000078:1.0 to 0.01:1.0.

23. The substance as recited in claim 21 wherein static electric charge is reduced to between approximately 22 percent and 50 percent of the original charge.